

## **REMARKS**

### **The Rejections under 35 U.S.C. §103**

Initially, it is pointed out that both of the references relied on for the rejections here were cited in previous office actions against the claims (see, e.g., action mailed April 2, 2008 (page 6)) and reliance on those references in the rejection was withdrawn after applicants' reply pointing out the distinction (see Response dated Sept. 29, 2008 (page 14)). The same distinctions remain and are pointed out again as follows.

The rejection of claims 1-5 and 8 under 35 U.S.C. §103, as being obvious over Schmidt (GB 973361), is respectfully traversed.

The pyrazolo-[3,4-d]-pyrimidines disclosed by Schmidt (e.g., see formula on page 1) require a non-hydrogen R<sup>5</sup> substituent as described at page 1, lines 45-59. This requirement, at least, clearly distinguishes the Schmidt compounds from those claimed herein. The corresponding nitrogen on the pyrimidine ring in the claimed compounds is expressly required to be hydrogen. There is no suggestion to modify the Schmidt compounds to remove the required R<sup>5</sup> group and no reason supported by the reference or otherwise on record would give any reason for one of ordinary skill in the art to make such a modification. See, e.g., KSR International Co. v. Teleflex Inc., 550 U.S. \_\_\_, 82 USPQ2d 1385, at 1396 (2007), stating: "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

The Office action points to the compounds disclosed at page 6, top left column, as supporting that the reference discloses compounds which differ from the claimed compounds only in that the variable corresponding to R<sup>1</sup> of Schmidt and R<sup>4</sup> of the claims differs by sec-butyl compared to pentan-3-yl. The compound being referred to, however, is the starting material compound for Example 11 (see particularly page 6, lines 14-18). The final product of Schmidt clearly requires a non-hydrogen substituent at the R<sup>5</sup> position. The R<sup>5</sup> substituent for the final

product of Example 11 is  $\beta$ -diethylaminoethyl (see page 6, lines 9-12). It is noted that all the specific compounds described at pages 3-4 are also starting material products, not final products.

The law is clear that there would be no motivation or reasons for one of ordinary skill in the art to modify compounds, which are taught only as intermediates, to arrive at compounds having a utility other than as an intermediate. In re Lulu, 74 F.2d 703, 223 USPQ 1257 (Fed. Cir. 1984). Even if the change is only from sec-butyl to pentan-3-yl, there is no motivation to make any change because these compounds of Schmidt are taught only as intermediates. Schmidt provides no rational basis for modifying its intermediates to provide compounds with a modified R<sup>1</sup> group and no substituent at the R<sup>5</sup> position.

As for the final products of Schmidt, there is no reason provided or apparent for why one of ordinary skill in the art would modify the Schmidt compounds to remove the R<sup>5</sup> substituents expressly required by Schmidt and also modify the R<sup>1</sup> group to a different alkyl group. The case law cited in the Office action provides no support for a case of obviousness for modifying a compound in two different positions.

For all of the above reasons, Schmidt fails to render the claimed invention obvious to one of ordinary skill in the art. Thus, the rejection under 35 U.S.C. §103 over Schmidt should be withdrawn.

The rejection of claims 1-5 and 8 under 35 U.S.C. §103, as being obvious over Schmidt (DE 1156415), is respectfully traversed.

The pyrazolo-[3,4-d]-pyrimidines disclosed by Schmidt (e.g., see formula on page 1) specifically require an isopropyl group at the position corresponding to the R<sup>4</sup> substituent of the claimed invention. This requirement, at least, clearly distinguishes the Schmidt compounds from those claimed herein. The corresponding R<sup>4</sup> group on the claimed compounds is expressly required to be pentan-3-yl or cycloalkyl. There is no teaching in the reference to modify the Schmidt compounds to replace the isopropyl group with a differing group. No reason for such a modification is supported by the reference or otherwise on record. See, e.g., KSR International Co. v. Teleflex Inc., 550 U.S. \_\_\_, 82 USPQ2d 1385, at 1396 (2007), stating: “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of

obviousness.” Contrary to providing a reason to make such a modification, the reference would clearly direct one of ordinary skill in the art from making such a modification. The reference expressly requires the very specific isopropyl group at this position. The other substituents in the reference can be varied alkyl groups, for example, but Schmidt DE ‘415 explicitly requires that the very specific isopropyl group be provided here. Thus, modifying the group, even to another alkyl group would be directly contrary to the specific objectives of the reference to specifically have the isopropyl group at this position. Applicants urge that obviousness cannot be based on a modification which clearly contravenes the clear objectives of the reference invention absent some other compelling reason for the modification – which does not exist here.

The Office action points to the MPEP and case law regarding obviousness based on homologous compounds. But the cited case law does not support the proposition of obviousness where it is necessary to make two structural modifications to a compound to arrive at the claimed compounds. The isopropyl group explicitly required by Schmidt would have to be modified in two structural aspects, i.e., adding an additional methylene group to the end of each of the branches, to arrive at the pentan-3-yl group. Schmidt provides no rational basis for modifying its compounds to make two structural modifications. This is particularly the case in view of Schmidt’s particular requirement specifically of an isopropyl group. The cases that support the adjacent homolog argument are cases where the reference discloses a series of alkyl groups which ended at a certain carbon number and it was found obvious to add the next carbon in the series to the chain (i.e., addition only on one group). The instant facts are distinct because Schmidt does not disclose a series of alkyl groups. It only discloses the specific and unique isopropyl group, which obviously Schmidt found as a key characterizing feature of its invention. The instant facts, therefore, do not analogize with the adjacent homolog case law. Thus, such case law is not applicable to the instant facts.

For all of the above reasons, Schmidt DE ‘415 also fails to render the claimed invention obvious to one of ordinary skill in the art. Thus, the rejection under 35 U.S.C. §103 over Schmidt DE ‘415 should also be withdrawn.

It is submitted that the claims are in condition for allowance. However, the Examiner is kindly invited to contact the undersigned to discuss any unresolved matters.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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